

REMARKS

The Office Action mailed September 14, 2005 has been carefully reviewed and the foregoing remarks have been made in consequence thereof.

Claims 1-20 are now pending in this application. Claims 1-20 are rejected.

In accordance with 37 C.F.R. 1.136(a), a one month extension of time is submitted herewith to extend the due date of the response to the Office Action dated September 14, 2005 for the above-identified patent application from December 14, 2005 through and including January 14, 2006. In accordance with 37 C.F.R. 1.17(a)(3), authorization to charge a deposit account in the amount of \$120.00 to cover this extension of time request also is submitted herewith.

The rejection of Claims 1-5, 7-16, and 18-20 under 35 U.S.C. § 102(b) as being anticipated by Johnson (US 6,332,011) is respectfully traversed.

Johnson describes a method of scanning a weld 70 in a nuclear reactor vessel 10 using a phased array probe 96 positioned on top of a shroud head flange 54. The probe contains one linear array transducer having a plurality of elements 98 configured to emit an ultrasonic beam 100. Notably, Johnson does not describe mounting at least one ultrasonic phased array probe including at least one transducer having a plurality of elements within a probe housing containing a liquid therein.

Claim 1 recites “a method of inspecting a portion of a weld between at least two materials, said method comprising mounting at least one ultrasonic phased array probe including at least one transducer having a plurality of elements within a probe housing containing a liquid therein...attaching the probe housing adjacent an outer surface of the portion of the weld such that the liquid is adjacent the outer surface of the portion of the weld...and scanning the weld with the at least one ultrasonic phased array probe.”

Johnson does not describe nor suggest a method of inspecting a portion of a weld between at least two materials as recited in Claim 1. Specifically, Johnson does not describe nor suggest a method of inspecting a portion of a weld between at least two materials wherein the method includes mounting at least one ultrasonic phased array probe including at least one transducer having a plurality of elements within a probe housing containing a liquid therein. Rather, in contrast to the present invention, Johnson describes a method of inspecting a portion of a weld using a free-standing probe not mounted to a probe housing. For the reasons set forth above, Claim 1 is submitted to be patentable over Johnson.

Claims 2-5 and 7-10 depend from independent Claim 1. When the recitations of Claims 2-5 and 7-10 are considered in combination with the recitations of Claim 1, Applicants submit that dependent Claims 2-5 and 7-10 likewise are patentable over Johnson.

Claim 11 recites “an apparatus configured to inspect a portion of a weld between at least two materials, said apparatus comprising a probe housing containing liquid...and at least one ultrasonic phased array probe mounted partially within said probe housing liquid.”

Johnson does not describe nor suggest an apparatus configured to inspect a portion of a weld between at least two materials as recited in Claim 11. Specifically, Johnson does not describe nor suggest an apparatus configured to inspect a portion of a weld between at least two materials wherein the apparatus includes a probe housing containing liquid and at least one ultrasonic phased array probe mounted partially within the probe housing liquid. Rather, in contrast to the present invention, Johnson describes an apparatus for inspecting a portion of a weld using a free-standing probe not mounted to a probe housing. For the reasons set forth above, Claim 1 is submitted to be patentable over Johnson.

Claims 12-14 depend from independent Claim 11. When the recitations of Claims 12-14 are considered in combination with the recitations of Claim 11, Applicants submit that dependent Claims 12-14 likewise are patentable over Johnson.

Claim 15 recites “a method of inspecting a portion of at least two pipes coupled by a weld within a nuclear reactor pressure vessel, said method comprising mounting at least one

ultrasonic phased array probe within a probe housing partially containing a liquid therein, wherein the at least one ultrasonic phased array probe includes at least one transducer having a plurality of elements, and the probe housing is configured to position the at least one ultrasonic phased array probe at a predetermined location on the weld....”

Johnson does not describe nor suggest a method of inspecting a portion of at least two pipes coupled by a weld within a nuclear reactor pressure vehicle as recited in Claim 15. Specifically, Johnson does not describe nor suggest a method of inspecting a portion of at least two pipes coupled by a weld within a nuclear reactor pressure vehicle wherein the method includes mounting at least one ultrasonic phased array probe within a probe housing partially containing a liquid therein, wherein the at least one ultrasonic phased array probe includes at least one transducer having a plurality of elements, and the probe housing is configured to position the at least one ultrasonic phased array probe at a predetermined location on the weld. Rather, in contrast to the present invention, Johnson describes a method of inspecting a portion of a weld using a free-standing probe not mounted to a probe housing. For the reasons set forth above, Claim 15 is submitted to be patentable over Johnson.

Claims 16 and 18-20 depend from independent Claim 15. When the recitations of Claims 16 and 18-20 are considered in combination with the recitations of Claim 15, Applicants submit that dependent Claims 16 and 18-20 likewise are patentable over Johnson.

For the reasons set forth above, Applicants respectfully request that the Section 102 rejection of Claims 1-5, 7-16, and 18-20 be withdrawn.

The rejection of Claims 6 and 17 under 35 U.S.C. § 103(a) as being unpatentable over Johnson in view of Watts et al. (“Watts”) (US 3,202,218) is respectfully traversed. Although Office Action states “in view of Buckley,” Examiner noted the correct are should be Watts as noted above.

Johnson is described above. Watts describes a submergible apparatus 10 for underwater operation of well head equipment. Apparatus 10 includes an upper housing 12 and a base 14 releasably secured together in a water type relationship to form a chamber 15

sized to permit men to enter and work therein. The base includes one or more flow conduits 50 for delivering production from the completed well to one or more flow lines. Notably, Watts does not describe a water-tight seal existing between the housing and the surface of the portion of the weld.

Claim 1 recites “a method of inspecting a portion of a weld between at least two materials, said method comprising mounting at least one ultrasonic phased array probe including at least one transducer having a plurality of elements within a probe housing containing a liquid therein...attaching the probe housing adjacent an outer surface of the portion of the weld such that the liquid is adjacent the outer surface of the portion of the weld...and scanning the weld with the at least one ultrasonic phased array probe.”

Neither Johnson nor Watts, considered alone or in combination, describe or suggest a method of inspecting a portion of a weld between at least two materials as recited in Claim 1. Specifically, neither Johnson nor Watts, considered alone or in combination, describe or suggest a method of inspecting a portion of a weld between at least two materials wherein the method includes mounting at least one ultrasonic phased array probe including at least one transducer having a plurality of elements within a probe housing containing a liquid therein. Rather, in contrast to the present invention, Johnson describes a method of inspecting a portion of a weld using a free-standing probe not mounted to a probe housing, and Watts describes a submersible apparatus for underwater operation of well head equipment, but Watts does not describe a water-tight seal existing between a probe housing and a surface portion of a weld. For the reasons set forth above, Claim 1 is submitted to be patentable over Johnson in view of Watts.

Claim 6 depends from independent Claim 1. When the recitations of Claim 6 are considered in combination with the recitations of Claim 1, Applicants submit that dependent Claim 6 is likewise patentable over Johnson in view of Watts.

Claim 15 recites “a method of inspecting a portion of at least two pipes coupled by a weld within a nuclear reactor pressure vehicle, said method comprising mounting at least one

ultrasonic phased array probe within a probe housing partially containing a liquid therein, wherein the at least one ultrasonic phased array probe includes at least one transducer having a plurality of elements, and the probe housing is configured to position the at least one ultrasonic phased array probe at a predetermined location on the weld....”

Neither Johnson nor Watts, considered alone or in combination, describe or suggest a method of inspecting a portion of at least two pipes coupled by a weld within a nuclear reactor pressure vehicle as is recited in Claim 15. Specifically, neither Johnson nor Watts, considered alone or in combination, describe or suggest a method of inspecting a portion of at least two pipes coupled by a weld within a nuclear reactor pressure vehicle, wherein the method includes mounting at least one ultrasonic phased array probe within a probe housing partially containing a liquid therein, wherein the at least one ultrasonic phased array probe includes at least one transducer having a plurality of elements, and the probe housing is configured to position the at least one ultrasonic phased array probe at a predetermined location on the weld. Rather, in contrast to the present invention, Johnson describes a method of inspecting a portion of a weld using a free-standing probe not mounted to a probe housing, and Watts describes a submergible apparatus for underwater operation of well head equipment, but Watts does not describe a water-tight seal existing between a probe housing and a surface portion of a weld. For the reasons set forth above, Claim 15 is submitted to be patentable over Johnson in view of Watts.

Claim 17 depends from independent Claim 15. When the recitations of Claim 17 are considered in combination with the recitations of Claim 15, Applicants submit that dependent Claim 17 likewise is patentable over Johnson in view of Watts.

Applicants respectfully submit that the Section 103 rejection of the presently pending claims is not a proper rejection. As is well established, obviousness cannot be established by combining the teachings of the cited art to produce the claimed invention, absent some teaching, suggestion, or incentive supporting the combination. Neither Johnson nor Watts, considered alone or in combination, describe or suggest the claimed combination. Furthermore, in contrast to the assertion within the Office Action, Applicants respectfully

submit that it would not be obvious to one skilled in the art to combine Johnson with Watts, because there is no motivation to combine the references suggested in the art. Additionally, the Examiner has not pointed to any prior art that teaches or suggests to combine the disclosures, other than Applicants' own teaching. Rather, only the conclusory statement that "it would have been obvious to one of ordinary skill in the art at the time of the invention to utilize in Johnson the sealing of Watts because it would provide any suitable means for releasably securing the housing to the base thereby providing a welding connection between the housing and the surface of the weld in an efficient manner" suggests combining the disclosures.

As the Federal Circuit has recognized, obviousness is not established merely by combining references having different individual elements of pending claims. Ex parte Levingood, 28 U.S.P.Q.2d 1300 (Bd. Pat. App. & Inter. 1993). MPEP 2143.01. Rather, there must be some suggestion, outside of Applicants' disclosure, in the prior art to combine such references, and a reasonable expectation of success must be both found in the prior art, and not based on Applicants' disclosure. In re Vaeck, 20 U.S.P.Q.2d 1436 (Fed. Cir. 1991). In the present case, neither a suggestion or motivation to combine the prior art disclosures, nor any reasonable expectation of success has been shown.

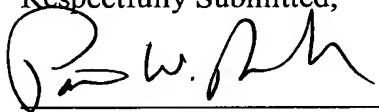
Furthermore, it is impermissible to use the claimed invention as an instruction manual or "template" to piece together the teachings of the cited art so that the claimed invention is rendered obvious. Specifically, one cannot use hindsight reconstruction to pick and choose among isolated disclosures in the art to deprecate the claimed invention. Further, it is impermissible to pick and choose from any one reference only so much of it as will support a given position, to the exclusion of other parts necessary to the full appreciation of what such reference fairly suggests to one of ordinary skill in the art. The present Section 103 rejection is based on a combination of teachings selected from multiple patents in an attempt to arrive at the claimed invention. Specifically, Johnson is cited for describing a method of inspecting a portion of a weld using a free-standing probe not mounted to a probe housing and Watts is cited for a submergible apparatus for underwater operation of well head equipment. Since

there is no teaching nor suggestion in the cited art for the combination, the Section 103 rejection is clearly based on a hindsight reconstruction in which isolated disclosures have been picked and chosen in an attempt to deprecate the present invention. Of course, such a combination is impermissible, and for this reason alone, Applicants request that the Section 103 rejection be withdrawn.

Moreover, if art "teaches away" from a claimed invention, such a teaching supports the nonobviousness of the invention. U.S. v. Adams, 148 USPQ 479 (1966); Gillette Co. v. S.C. Johnson & Son, Inc., 16 USPQ2d 1923, 1927 (Fed. Cir. 1990). In light of this standard, it is respectfully submitted that the cited art, as a whole, is not suggestive of the presently claimed invention. Specifically, Applicants respectfully submit that Watts teaches away from the present invention, and as such, there is no suggestion or motivation to combine Johnson with Watts. Specifically, in contrast to the present invention, Watts describes providing a sealing ring between a pair of rings for a tube, not providing a watertight seal between a probe housing and a surface portion of a weld. Accordingly, Watts teaches away from the present invention, and as such, any combination of the cited art appears to support the non-obviousness of the present invention.

In view of the foregoing remarks, all the claims now active in this application are believed to be in condition for allowance. Reconsideration and favorable action is respectfully solicited.

Respectfully Submitted,



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